Amendments to the Specification:

Please replace paragraph on page 4 under the title SUMMARY OF THE INVENTION with the following amended paragraph:

-- The present invention demonstrates, for the first time, taste receptor cell specific expression of nucleic acids encoding G-protein alpha subunit. Specifically, the present invention identifies that G14, a G-protein alpha subunit, is specifically and selectively expressed in taste receptor cells. This gene was found to be co-expressed with G-protein coupled taste receptors, GPCR-B3 and GPCR-B4 (*see* USSN 09/361,652, filed July 27, 1999 and USSN. 09/361,631, filed July 27, 1999, now U.S. Patent No. 6,383,778). Functionally, GPCR-B3 and GPCR-B4 each represents a seven transmembrane G-protein coupled receptor involved in taste transduction, which interacts with a G-protein to mediate taste signal transduction (see, *e.g.*, Fong, *Cell Signal* 8:217(1996); Baldwin, *Curr. Opin. Cell Biol.* 6:180 (1994)). Structurally, exemplary polynucleotide sequences encoding rat, mouse, and human GPCR-B3 are presented in SEQ ID NOs:3-5, respectively, encoding polypeptides having the amino acid sequences of SEQ ID NOs:6-8. Exemplary polynucleotide sequences encoding rat, mouse, and human GPCR-B4 are presented in SEQ ID NOs:9-11, respectively, encoding polypeptides having the amino acid sequences of SEQ ID NOs:12-14. These taste receptors have been previously shown to be expressed in topographically distinct subpopulations of taste receptor cells and taste buds. These receptors are specifically localized to the taste pore, and are distantly related to putative mammalian pheromone receptors. The present invention thus demonstrates that Gα14 is specifically expressed in taste cells and further that it is co-expressed with GPCR-B3 and GPCR-B4 receptors in the different taste papillae. The G-protein alpha subunits that are specifically expressed in taste cells can thus be used, e.g., to screen for modulators of taste. The compounds identified by these assays would then be used by the food and pharmaceutical industries to customize taste, e.g., as additives to food or medicine so that the food or medicine tastes different to the subject who ingests it. For example, bitter medicines can be made to taste less bitter, and sweet substance can be enhanced.--

Please replace the paragraph starting on page 11, line 24, with the following amended paragraph:

--"TC-GPCR" refers to a G-protein coupled receptor that is specifically expressed in taste receptor cells such as foliate, fungiform, and circumvallate cells. Such taste cells can be identified because they express molecules such as Gustducin, a taste cell specific G-protein (McLaughin *et al., Nature* 357:563-569 (1992)). Taste receptor cells can also be identified on the basis of morphology (*see, e.g.*, Roper, *supra*). Examples of TC-GPCR include GPCR-B3 and GPCR-B4 (*see, e.g.*, Hoon *et al.*, Cell 96:541-551 (1999); *see also* USSN 09/361,652, filed July 27, 1999 and USSN. 09/361,631, filed July 27, 1999, now U.S. Patent No. 6,383,778), herein incorporated by reference in their entirety). Exemplary polynucleotide sequences encoding rat, mouse, and human GPCR-B3 are presented in SEQ ID NOs:3-5, respectively, encoding polypeptides having the amino acid sequences of SEQ ID NOs:6-8. Exemplary polynucleotide sequences encoding rat, mouse, and human GPCR-B4 are presented in SEQ ID NOs:9-11, respectively, encoding polypeptides having the amino acid sequences of SEQ ID NOs:12-14. TC-GPCRs encode G-protein coupled receptors with seven transmembrane regions that have "G-protein coupled receptor activity," as described below, e.g., they bind to G-proteins in response to extracellular stimuli and promote production of second messengers such as IP_3, cAMP, and Ca^{2+} via stimulation of enzymes such as phospholipase C and adenylate cyclase (for a description of the structure and function of G-protein coupled receptors, *see, e.g.*, Fong, *supra*, and Baldwin, *supra*).--

Please replace the paragraph starting on page 32, line 25, with the following amended paragraph:

-- In a preferred embodiment, TC-G14 activity is measured by expressing TC-Gα14 in a heterologous cell with a TC-GPCR (*see* USSN 09/361,652, filed July 27, 1999 and USSN. 09/361,631, filed July 27, 1999, now U.S. Patent No. 6,383,778). Exemplary polynucleotide sequences encoding rat, mouse, and human GPCR-B3 are presented in SEQ ID NOs:3-5, respectively, encoding polypeptides having the amino acid sequences of SEQ ID NOs:6-8. Exemplary polynucleotide sequences encoding rat, mouse, and human GPCR-B4 are presented in SEQ ID NOs:9-11, respectively, encoding polypeptides having the amino acid

sequences of SEQ ID NOs:12-14. As shown in Example I below, TC-Gα14 is specifically expressed in taste receptor cells, and also co-expressed with GPCR-B3 and GPCR-B4, in different taste papillae. As described above, HEK-293 cells may be used as a heterologous host cell, and modulation of taste transduction is assayed by measuring changes in intracellular Ca^{2+} levels.--

Please replace the paragraph starting on page 59, line 24, with the following amended paragraph:

-- These experiments demonstrate that Gα14 is specifically and selectively expressed in circumvallate, foliate and fungiform taste receptor cells of the tongue, as shown by *in situ* hybridization. Therefore, Gα14 is a G alpha subunit that is specifically expressed in taste receptor cells. Furthermore, this gene is co-expressed with both GPCR-B3 and GPCR-B4 receptors in the different taste papillae (*see* USSN 09/361,652, filed July 27, 1999 and USSN. 09/361,631, filed July 27, 1999, now U.S. Patent No. 6,383,778). Exemplary polynucleotide sequences encoding rat, mouse, and human GPCR-B3 are presented in SEQ ID NOs:3-5, respectively, encoding polypeptides having the amino acid sequences of SEQ ID NOs:6-8. Exemplary polynucleotide sequences encoding rat, mouse, and human GPCR-B4 are presented in SEQ ID NOs:9-11, respectively, encoding polypeptides having the amino acid sequences of SEQ ID NOs:12-14.--

Please cancel the present "SEQUENCE LISTING", pages 1-4, submitted on August 30, 2000, and insert therefor the accompanying paper copy of the Substitute Sequence Listing, page numbers 1 to 26, at the end of the application.